

**Notice of Allowability**

Application No.

09/961,256

Examiner

James A. Thompson

Applicant(s)

NARA, WATARU

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 26 July 2007.
2. ☒ The allowed claim(s) is/are 1-35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 7/26/07
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

/James A. Thompson/

**DETAILED ACTION*****Response to Arguments***

1. Applicant's arguments, see pages 12-18, filed 26 July 2007, with respect to the rejections under 35 USC § 103(a) have been fully considered and are persuasive. The rejections under 35 USC § 103(a) have been withdrawn. Claims 27-30 and 34-35 were noted as containing allowable subject matter in the previous office action, mailed 26 April 2007. As a result of the claim amendments and Applicant's arguments filed 26 July 2007, the remaining claims are also considered allowable. A more detailed explanation of the allowability of the claims is presented below.

***Allowable Subject Matter***

2. **Claims 1-35 are allowed.**

The following is an examiner's statement of reasons for allowance:

Independent claims 1, 12, 14, 24 and 26 each recite either a device, apparatus or method which detects and removes background noise from image data. A background level is detected, a threshold is determined for background removal, and the background noise is removed based on the determined threshold. The distinguishing feature in each of claims 1, 12, 14, 24 and 26 relates to how the threshold for background removal is determined. In each of said claims, the background level is detected so as to produce original background level value data, which is stored separately and not a part of the image data. Then, one or more types of image processing is applied to the image data. The identical type(s) of image processing is also applied to the produced original background level value data. The thus modified background level value data is then used to generate the threshold utilized in background noise removal. Examiner has been unable to find this particular process of removing background noise from image data in the prior art, nor has Examiner found a combination of prior art references which would render these features obvious to one of ordinary skill in the art at the time of the invention. Accordingly, independent claims 1, 12, 14, 24 and 26 are deemed allowable. Claims 2-11, 13, 15-23, 25, 31 and 33 are deemed allowable at least owing to their respective dependencies. The closest prior art is the combination of references Tse (USPN 6,198,845 B1) in view of Koga (USPN 5,388,167). Said combination does not teach that the threshold is derived from the image processed modified background level value data, wherein the image processed modified background level value data is derived from image processing performed on background level value data that is detected and separate from the image data.

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Independent claims 27 and 30 recite *inter alia* that one or more types of image processing is performed both to clipped image data and to an original threshold level value, said original image threshold value determined based on a detected background level, so as to generate both clipped image processed data from the scanned image data and a modified threshold level value from the original threshold level value. A generated threshold derived from said modified threshold value is used to perform background removal. Examiner has not found this precise combination of limitations in the prior art such that claims 27 and 30 would be anticipated and/or rendered obvious by the prior art. The closest prior art found is combination of Tse and Koga, as discussed above. Thus, independent claims 27 and 30 are considered allowable. Claims 28-29 and 34-35 are considered allowable at least owing to their respective dependencies from either claim 27 or claim 30.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James A. Thompson  
Examiner  
Technology Division 2625

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05 September 2007



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